CLAIMS

1. A method for automatically filtering a corpus of documents containing textual and non-textual information of a natural language, the method being characterized in that it comprises the steps of:

    - dividing the corpus of documents into appropriate portions;

    - determining for each portion of the corpus of documents a regularity value (V_R) measuring the conformity of the portion with respect to character sequences probabilities predetermined for said language;

    - comparing each regularity value with a threshold value (V_T) to decide whether the conformity is sufficient; and

    - rejecting any portion of the corpus of documents whose conformity is not sufficient.

2. Method according to Claim 1, wherein said character sequences probabilities is derived from a statistical model representative of said language.

3. Method according to Claim 2, wherein for each portion of the corpus of documents, said regularity value (V_R) is based on a computed perplexity of the portion with respect to said statistical model.

4. Method according to Claim 2, wherein said statistical model is previously elaborated from a reference document determined as conforming with the rules of said language.

5. Method according to Claim 2, wherein said statistical model is being determined according to N-gram statistics.

6. Method according to Claim 2, wherein said statistical model is a character-based N-gram model.

7. Method according to Claim 2, wherein said statistical model is initially used to filter a first corpus segment of a predetermined size to provide a first filtered segment of the corpus of documents, said first filtered segment serving as a basis for computing a more accurate statistical model which is to be used to filter the rest of the corpus of

5   documents.

8. Method according to Claim 1, wherein said threshold value (V_T) is determined by executing the following steps of:

- defining a test corpus as a subset of the corpus of documents to be filtered;

10   - manually cleaning said test corpus so as to obtain a cleaned test corpus which is representative of the type of textual information that is considered as being sufficiently in conformity with the language rules and a rejected test corpus that is the complement of said cleaned test corpus;

- computing a perplexity value for each of said cleaned and rejected test corpora

15   with regard to said statistical model; and

- setting the threshold value searched between the perplexity values computed.

9. Method according to Claim 1, wherein said portions comprise lines, paragraphs, and whole documents – whose size is determined as a function of the overall size of the

20   corpus of documents or as a function of the nature of the documents contained in the corpus of documents or both, so as to obtain a granularity desired for the filtering.

10. An apparatus for automatically filtering a corpus of documents containing textual and non-textual information of a natural language, the apparatus being

25   characterized in that it comprises:

- means for dividing the corpus of documents into appropriate portions;

- means for determining for each portion of the corpus of documents a regularity value measuring the conformity of the portion with respect to character sequences probabilities predetermined for said language;

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- means for comparing each regularity value with a threshold value to decide whether the conformity is sufficient; and

- means for rejecting any portion of the corpus of documents whose conformity is not sufficient.

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11. Apparatus according to Claim 10, wherein said character sequences probabilities are derived from a statistical model representative of said language.

12. Apparatus according to Claim 11, wherein for each portion of the corpus of documents, said regularity value (V_R) is based on a computed perplexity of the portion with respect to said statistical model.

13. Apparatus according to Claim 11, wherein said statistical model is previously elaborated from a reference document determined as conforming with the rules of said language.

14. Apparatus according to Claim 11, wherein said statistical model is being determined according to N-gram statistics.

15. Apparatus according to Claim 11, wherein said statistical model is a character-based N-gram model.

16. Apparatus according to Claim 11, wherein said statistical model is initially used to filter a first corpus segment of a predetermined size to provide a first filtered segment of the corpus of documents, said first filtered segment serving as a basis for computing a more accurate statistical model which is to be used to filter the rest of the corpus of documents.

17. Apparatus according to Claim 10, wherein said threshold value (V_T) is determined by executing the following steps of:

- defining a test corpus as a subset of the corpus of documents to be filtered;

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- manually cleaning said test corpus so as to obtain a cleaned test corpus which is representative of the type of textual information that is considered as being sufficiently in conformity with the language rules and a rejected test corpus that is the complement of said cleaned test corpus;

5   - computing a perplexity value for each of said cleaned and rejected test corpora with regard to said statistical model; and

- setting the threshold value searched between the perplexity values computed.

18. Apparatus according to Claim 10, wherein said portions comprise lines,
10   paragraphs, and whole documents – whose size is determined as a function of the overall size of the corpus of documents or as a function of the nature of the documents contained in the corpus of documents or both, so as to obtain a granularity desired for the filtering.

19. A computer system comprising an apparatus according to Claim 10.

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20. A computer program comprising software code portions for performing a method according to Claim 1, when said computer program is loaded and executed by a computer system.

20   21. A computer-readable program storage medium which stores a program for executing a method for automatically filtering a corpus of documents containing textual and non-textual information of a natural language, the method being characterized in that it comprises the steps of:

- dividing the corpus of documents into appropriate portions;

25   - determining for each portion of the corpus of documents a regularity value (V_R) measuring the conformity of the portion with respect to character sequences probabilities predetermined for said language;

- comparing each regularity value with a threshold value (V_T) to decide whether the conformity is sufficient; and

30   - rejecting any portion of the corpus of documents whose conformity is not sufficient.

22. Computer-readable program storage medium according to Claim 21, wherein said character sequences probabilities is derived from a statistical model representative of said language.

5   23. Computer-readable program storage medium according to Claim 22, wherein for each portion of the corpus of documents, said regularity value (V_R) is based on a computed perplexity of the portion with respect to said statistical model.

24. Computer-readable program storage medium according to Claim 22, wherein
10   said statistical model is previously elaborated from a reference document determined as conforming with the rules of said language.

25. Computer-readable program storage medium according to Claim 22, wherein said statistical model is being determined according to N-gram statistics.

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26. Computer-readable program storage medium according to Claim 22, wherein said statistical model is a character-based N-gram model.

27. Computer-readable program storage medium according to Claim 22, wherein
20   said statistical model is initially used to filter a first corpus segment of a predetermined size to provide a first filtered segment of the corpus of documents, said first filtered segment serving as a basis for computing a more accurate statistical model which is to be used to filter the rest of the corpus of documents.

25   28. Computer-readable program storage medium according to Claim 21, wherein said threshold value (V_T) is determined by executing the following steps of:
       - defining a test corpus as a subset of the corpus of documents to be filtered;
       - manually cleaning said test corpus so as to obtain a cleaned test corpus which is representative of the type of textual information that is considered as being sufficiently in
30   conformity with the language rules and a rejected test corpus that is the complement of said cleaned test corpus;

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- computing a perplexity value for each of said cleaned and rejected test corpora with regard to said statistical model; and

- setting the threshold value searched between the perplexity values computed.

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29. Computer-readable program storage medium according to Claim 21, wherein said portions comprise lines, paragraphs, and whole documents – whose size is determined as a function of the overall size of the corpus of documents or as a function of the nature of the documents contained in the corpus of documents or both, so as to obtain a granularity desired for the filtering.

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